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ABSTRACT OF THE DISCLOSURE

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An Ethernet switch and a method of switch for selectively transporting or filtering network packets. Said Ethernet switch comprises plural network ports, a first and a second memory device, a first and a second memory control device, an switch device, and a second memory management device. Network ports are for receiving or delivering network packets. The first memory device saves the source address and associated messages of the network packets. The second memory device saves the network packets received from the network port. The first and the second memory control devices connect to the first and the second memory devices, respectively, for controlling the read and write of the first and the second memory devices. Further, the switch device connects the network port and the first memory control device, for creating a source address and the associated messages of the network port for each network packet, and for creating a destination address and the associated messages of the network port for each network packet in accordance with the contents of the first memory device for managing the contents of the first memory device. The second memory device connects the network port and the second memory control device for managing the contents of the second memory device. The shared memory access control circuit controls the access to the shared memory device.